



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/836,488	04/17/2001	Mo-Han Fong	12473RMUS02U	8528

7590 04/08/2004
Bruce E. Garlick
Garlick & Harrison
P.O. Box 691
Spicewood, TX 78669

EXAMINER

EURIPIDOU, CHRISTOPHER M

ART UNIT	PAPER NUMBER
----------	--------------

2114

DATE MAILED: 04/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/836,488

Applicant(s)

FONG ET AL.

Examiner

Christopher M Euripidou

Art Unit

2184

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 April 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 April 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-21 are rejected under 35 U.S.C. 102(e) as being anticipated by

Suumaki et al. U.S. Patent Application Publication 2001/0007137 A1.

3. Referring to claims 1 and 11, the limitation of a method for operating a receiver to receive data from a transmitter across a wireless link, Suumaki et al. (Page 1, section 1) discloses methods of wireless communication between devices in a network. Referring to the limitation of receiving, by a physical layer operating on the receiver, a physical layer frame from the transmitter across the wireless link, Suumaki et al. (Page 1, section 8) discloses the different layers of the protocol used for connections, including a physical layer. Referring to the limitation of determining whether the physical layer frame is error free, Suumaki et al. (Page 2, section 10) discloses checking the accuracy of the data sent using a checksum. Referring to the limitation when the physical layer frame is error free, acknowledging to the transmitter a successful receipt, extracting a packet data unit from the physical layer frame, and passing the packet data unit to a link layer operating on the receiver, Suumaki et al. (Page 2, section 15) discloses

Art Unit: 2184

acknowledging a data transfer and transmitting the correct data to the upper layer in order of arrival. Referring to the limitation when the physical layer frame is not error free, negatively acknowledging to the transmitter a successful receipt, Suumaki et al. (Page 2, section 17) discloses notifying the sender that the data was not received properly. Referring to the limitation of receiving, by the link layer operating on the receiver, a packet data unit, Suumaki et al. (Page 2, section 9) discloses use of the link layer to receive the RLC PDU's. Referring to the limitation of determining whether a packet data unit is lost, Suumaki et al. (Page 2, section 17) discloses notifying the sender that the data was not received properly. Referring to the limitation when the packet data unit is lost, delaying an automatic retransmission request for a lost packet data unit for a delay period corresponding to an error recovery operation at the physical layer for the lost packet data unit, Suumaki et al. (Page 3, section 26) discloses waiting until the end of a window of data units to be sent before retransmitting data that was not received during that period.

4. Referring to claims 2, 7, 12, and 18, the limitation that the delay period corresponds to N attempts to successfully receive a physical layer frame containing the lost packet data unit, and wherein N is an integer, Suumaki et al. (Page 2, section 10) discloses reaching a maximum number of retransmission attempts before determining that the data cannot be correctly received.

5. Referring to claims 3, 4, 8, 9, 15, 16, 20, and 21, the limitation that the transmitter is a base station; and the receiver is a mobile station, or vice versa, Suumaki et al. (Page 1, section 1) discloses a wireless communication device arranged to function in a

Art Unit: 2184

telecommunication network, either as a transmitter or a receiver, with another communication device that could be wired or wireless.

6. Referring to claims 5 and 13, the limitation of determining whether a packet data unit is lost includes comparing the sequence number of a received packet data unit to the sequence number of an expected packet data unit, Suumaki et al. (Page 3, sections 26 and 27) discloses receiving data in windows containing data arranged with sequence numbers and using the sequence numbers to determine when data is lost after not receiving all the sequence numbers in a window within a period of time or retransmissions.

7. Referring to claims 6 and 17, the limitation of a method for operating a transmitter to transmit data to a receiver across a wireless link, Suumaki et al. (Page 1, section 1) discloses methods of wireless communication between devices in a network. Referring to the limitation of passing a packet data unit from a link layer operating on the transmitter to a physical layer operating on the transmitter, Suumaki et al. (Page 1, section 8) discloses a physical layer and a data link layer that communicate to pass data between the layers, including passing a PDU from the link layer to the physical layer. Referring to the limitation of packaging the packet data unit into a physical layer frame, Suumaki et al. (Page 2, section 9) discloses dividing up the PDU's into suitably sized payload units. Referring to the limitation of transmitting the physical layer frame to a receiver across the wireless link, Suumaki et al. (Page 2, section 10) discloses transmitting the data to another point in the network. Referring to the limitation of awaiting an indication of successful receipt of the physical layer frame from the receiver,

Art Unit: 2184

Suumaki et al. (Page 2, section 10) discloses using acknowledgments to notify the transmitting device that the data was successfully received. Referring to the limitation when an indication of a successful receipt of the physical layer frame is not received, initiating retransmission of the physical layer frame, Suumaki et al. (Page 2, section 10) discloses retransmitting a data unit if an acknowledgment is not received in the allotted period. Referring to the limitation if the indication of successful receipt of the physical layer frame is not received after at least one retransmission attempt, notifying the link layer that the packet data unit is lost, Suumaki et al. (Page 2, section 17) discloses notifying the data link layer that the data could not be transmitted due to unrecoverable errors within the scope of the given retransmissions and set delay. Referring to the limitation of the link layer initiating error recovery operations for the packet data unit that is lost, Suumaki et al. (Page 4, section 42) discloses determining that a data unit contains errors and cannot be transmitted, and further detecting the particular segment that contains an error to repair it.

8. Referring to claims 10, 14, and 19, the limitation that the link layer comprises a radio link protocol layer, Suumaki et al. (Page 1, section 8) discloses a data link layer that contains a radio link control sublayer.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Dudley et al. U.S. Patent Number 5,754,754 and Rhee U.S. Patent Number 6,289,054 B1.

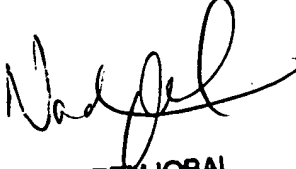
Art Unit: 2184

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher M Euripidou whose telephone number is (703) 305-4669. The examiner can normally be reached on 8:30 AM - 5:30 PM with first Friday's off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Beausoliel can be reached on (703) 305-9713. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CME


NADEEM IQBAL
PRIMARY EXAMINER